

# DOUBLE FLANGED BUTTERFLY VALVE F 012-K1



Double flanged butterfly valve with short construction length to be used in heavy duty applications.

## TECHNICAL DATA

Nominal diameter:	DN 500 – DN 1200 bigger sizes upon request
Face-to-face:	EN 558 Series 20 (DIN 3202 T3 K1) ISO 5752 Series 20 (DIN 3202 T3 K1) API 609 Table 1 NF E 29-305.1
Flange accommodation:	DIN 2501 PN 6/10/16 ANSI B 16.5, Class 150 MSS SP44 Class 150 AWWA C 207 AS 2129 Table D and E BS 10 Table D and E JIS B 2211-5 K JIS B 2212-10 K
Flange Surface Design:	DIN 2526, Form A-E, ANSI RF
Top flange:	EN ISO 5211 NF E 29-402
Marking:	DIN EN 19
Tightness check:	DIN 3230 T3 BO, BN (Leakage Rate 1) ISO 5208, Category 3 API 598 Table 5 ANSI B 16-104, Class VI
Temperature range:	-20 °C to + 160 °C (depending on pressure, medium and material)
Operating pressure:	max. 16 bar
Differential pressure:	max 16 bar
Vacuum:	0,2 bar absolute (depending on medium and temperature)

## FEATURES

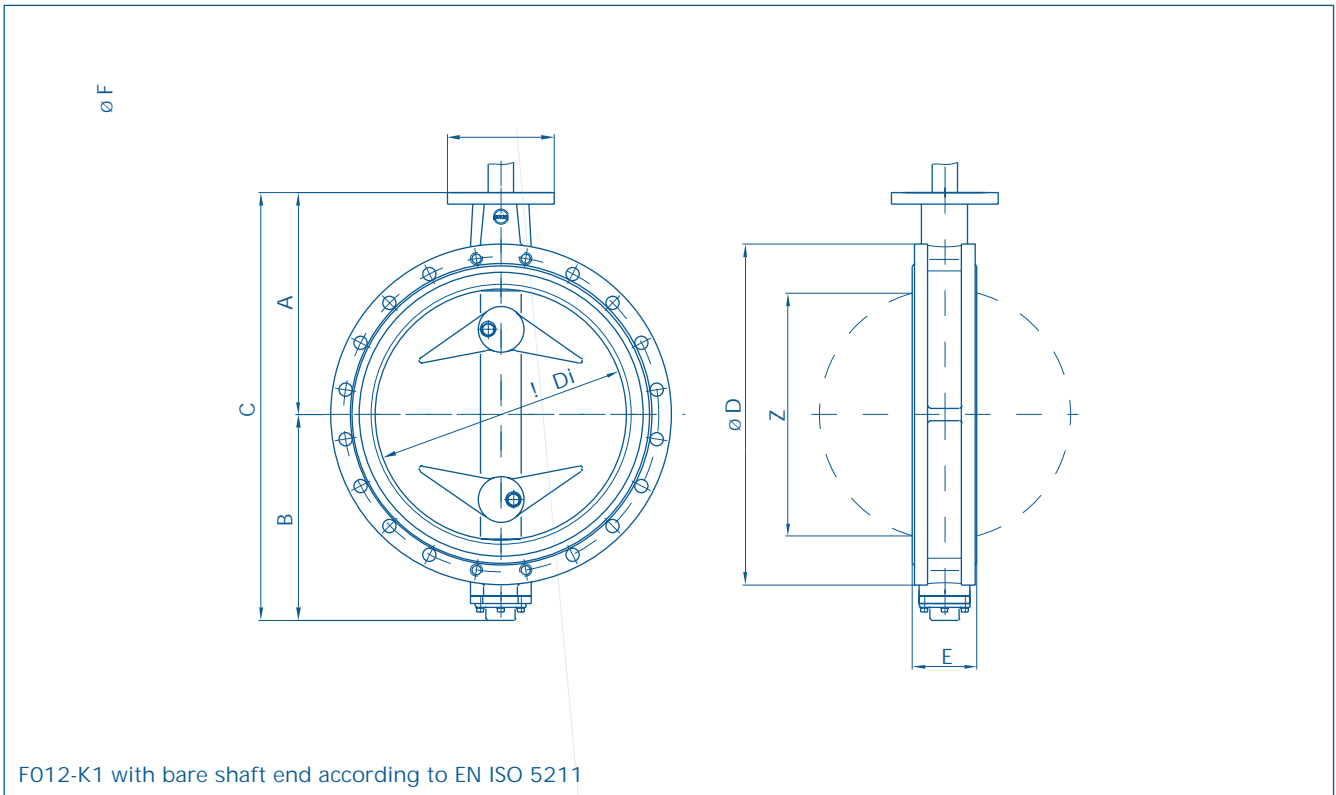
- Absolutely tight sealing with flow in either direction
- The valve body and disc are accurately machined which results in low operating torque and long service life and reliability.
- Triple shaft bearings prevents shaft deflection and guarantees optimum guidance even after many years of operating service.
- Can be disassembled, material-specific recycling possible.
- Single flange mounting is possible.
- Can be installed in any desired position.
- Maintenance-free
- Fully repairable valve

## GENERAL APPLICATIONS

- Offshore
- Water and wastewater technology
- Shipbuilding
- Power plants



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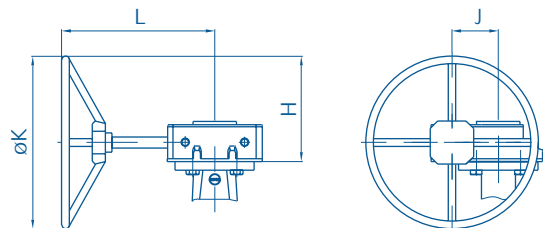
DN [mm]	Size [in]	Dimensions [mm]										Weight [kg] (GGG-40)	
		A	B	C	D	Di	E	F	Flange	Z	splitted shaft	TS- shaft	
500	20	437	405	842	710	494,5	127	210	F14/F 16	474	163	170	
600	24	498	469	967	830	590	154	300	F16/F 25	563	233	260	
700	28	581	507	1088	905	680	165	300	F16/F 25	660	292	345	
800	32	630	556	1186	1020	780	190	300	F 25	757	446	466	
900	36	696	617	1313	1120	880	203	300	F 25	860	568	610	
1000	40	771	675	1446	1250	980	216	350	F 30	956	624	722	
1200	48	905	810	1715	1480	1170	254	350	F 30	1154	-	980	

## WORM GEAR

DN [mm]	Size [in]	Gear	H	J	K	L	Weight [kg]
500	20	Size VII	278	123	457	406	30,5
600	22-24	Size VIII	355	154	610	466	45,0
700-800	28-32	Size XIV	295	54	457	466	65,0
900	36	Size XV	294	97	457	498	104,0
1000	40	Size XVI	253	237	356	558	186,0
1200	48	Size XVII	323	292	457	647	262,0

The dimensioning of actuators refers to an operating pressure of 10 bar.

Other Actuators: See Documentation of the Manufacturer.



Subject to change without notice.



# DOUBLE FLANGED BUTTERFLY VALVE F012-K1

## TORQUE

- The torque values specified (MD) are based on liquid and lubricant media.
  - Powdery (non-lubricant) media  
Md x 1,3
  - Dry gases/high viscous media  
Md x 1,2
  - The values specified are based on the initial breakaway torque.
  - Dynamic torque specification available upon request.
- Regarding the dimensioning of actuators, please contact our engineers.

DN [mm]	Size [in]	Operating pressure [Nm]			
		3 [bar]	6 [bar]	10 [bar]	16 [bar]
a) F 012-K1 with through-going shaft (TS-Version)					
500	20	900	1100	2255	3690
600	24	1050	2100	3000	5830
700	28	1560	2240	3450	8100
800	32	2070	3900	6600	11200
900	36	2700	4900	7100	14500
1000	40	4600	6760	11500	24400
1200	48	7800	12000	21000	44000
b) F 012-K1 with splitted shaft					
500	20	900	∅	∅	∅
600	24	1050	∅	∅	∅
700	28	1600	∅	∅	∅
800	32	2200	∅	∅	∅
900	36	2800	∅	∅	∅
1000	40	4800	∅	∅	∅

All values in Nm

## K<sub>v</sub>-VALUES

- The K<sub>v</sub>-value (m<sup>3</sup> per hour) is the flow of water at a temperature of 5<sub>i</sub>C to 30<sub>i</sub>C ( 41<sub>i</sub>F to 86<sub>i</sub>F) at p of 1 bar.
- The K<sub>v</sub>-values specified are based on tests carried out by the Delfter Hydraulics Laboratories, the Netherlands.
- Permissible velocity of flow  
Vmax 4,5 m/s for liquids and  
Vmax 70 m/s for gases.
- The throttle function is linear at an angle 30<sub>i</sub>to 70<sub>i</sub>.
- Avoid cavitation!

DN [mm]	Size [in]	Opening anglei							
		20 <sub>i</sub>	30 <sub>i</sub>	40 <sub>i</sub>	50 <sub>i</sub>	60 <sub>i</sub>	70 <sub>i</sub>	80 <sub>i</sub>	90 <sub>i</sub>
500	20	520	1100	2200	3500	6200	12000	15100	21000
600	24	750	1400	2800	5100	8800	14000	22000	29300
700	28	770	1755	3260	5980	10600	17100	25300	36000
800	32	1200	2260	4550	8230	12900	20300	29300	44600
900	36	1540	2280	6030	10500	17600	29200	42150	59000
1000	40	2200	3970	8300	14480	24000	37100	60300	81500
1200	48	5050	7900	13800	19700	33500	53300	73050	102650

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For further values, please contact our engineers.